



AMERICAN
SPEECH-LANGUAGE-
HEARING
ASSOCIATION

2012 Researcher-Academic Town Meeting

Preferred Educational Future in CSD

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Disclosure

- + Alex Johnson is an employee of the MGH Institute of Health Professions, which is the source of much of the information contained in the following presentation.
- + Alex Johnson has no other financial relationships associated with this presentation.

Appreciation

- + Colleagues at the MGH Institute of Health Professions
- + Dr. Elizabeth Armstrong (Harvard Macy Institute)
- + Dr. James Gordon (Mass General Hospital)
- + Drs. Tom Aretz and Mehul Mehta (Partners Medical International)
- + The Work of Professor Clayton Christiansen

Questions in the Background-

- + What are the drivers for educational reform in SLP?
- + Do our current models reflect what we know about best practice in adult learning and professional education?
- + How can we position our graduates for “more likely” success as they enter the competitive and fast changing world of health care (and education)?

Some Assumptions

- + Education Models in SLP continue to need to evolve to be more patient centric and evidence based
- + A trend in all of “higher” education is toward more active and experiential learning; use of technology to replace some basic content
- + Higher education in all health professions is changing
- + Education really is everyone’s job; not higher education’s job
- + Continuing professional education is as important as entry level education

Grade Your Academic Preparation

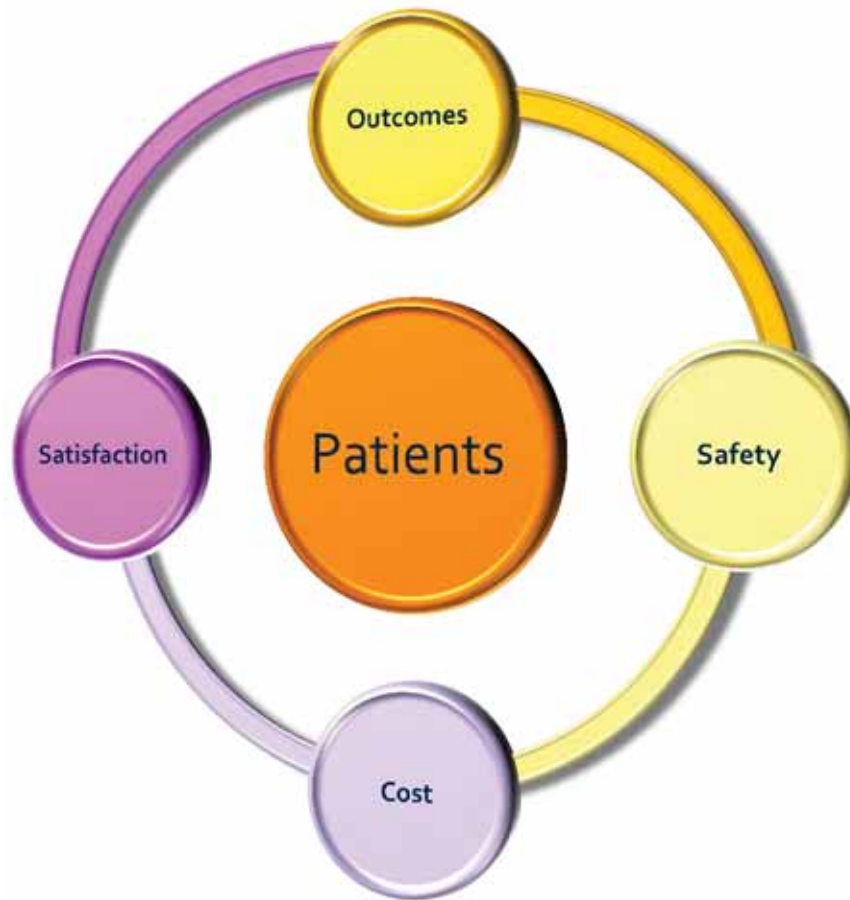
Tough Question Number 1

- + Basic Clinical Skills
- + Advanced Clinical Skills
- + Knowledge of the discipline
- + Evidence Based Practice and Outcomes Knowledge and Application
- + Interprofessional Skills and Practice
- + Reducing Costs
- + Relating strategically to non-SLPs, particularly primary care providers
- + Being the “primary care advocate” for people with communication disorders
- + Delegating non-essential tasks to others
- + Supervising and teaching others
- + Accessing data bases to make rapid decisions
- + Bringing value to every patient care interaction

Higher Education is struggling with many of the same issues as health care...

	Health Care Settings	Higher Education Settings
Customer Satisfaction	Pt. Experience	Student Experience
Cost	Reduce service volume; lower delivery cost	Tuition costs; other costs
Quality Outcomes	Health Function, QOL	Graduation/Placement
Reduce LOS	Cut hospital days; no. of visits, etc	Cut time to entry to practice
Safety	Patient Welfare/Reduce Errors/ Reduce unnecessary complications	Student Welfare/ Conflict Resolution/ Violence Reduction on campuses
Funding	Reduce reliance on insurance	Reduce reliance on financial aid

Value Based Service Delivery is not REALLY about reimbursement; although in the future reimbursement is likely to be value based.



Where in the curriculum do we teach methodologies for these value based considerations?

Check out www.ihl.org

Institute for Health Improvement (ihi.org)

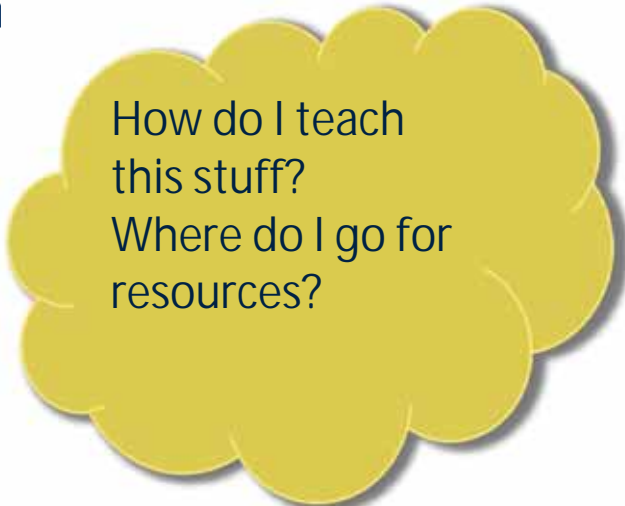
- + Open School

- + [:http://www.ihi.org/offerings/IHIOpenSchool/Pages/default.asp](http://www.ihi.org/offerings/IHIOpenSchool/Pages/default.asp)

- X

- + No admissions, no applications, no fees

- + Just short term education



How do I teach
this stuff?
Where do I go for
resources?

Future of Higher Education is Active Learning Over the Course of a Career

- + Educational Transformation-
 - + Moving Education Closer to the patient encounter
 - + Into a constant learning mode-curricular and co-curricular
 - + Moving as quickly as possible to an active learning mode
 - + Bringing Efficiency Into Education (Not there now)
 - + Extending beyond Entry Level



Interprofessional Education as Transformative

- + Interprofessional education will become as critical as our own disciplinary models in building competence for practice



Core Competencies for
Interprofessional Collaborative
Practice: Report of An Expert Panel
(2011)

American Medical Association
American Pharmacy
Association
American Academy of Colleges
of Nursing
American Association of
Medical Colleges
American Osteopathic
Association

What might Health Care SLP be like in 2020? Guiding Future Thinking...

- + Part of a team that is condition- or patient-focused (Neurology, Acute, Rehabilitation, Pediatric, Primary Care, etc.)
- + Skilled in making decisions that control/reduce error/cost; improve safety; and enhance outcomes
- + Fast, efficient, and outcomes focused
- + “Top of the license” practice; skilled at delegation to others
- + Constantly adapting/changing/learning
- + Skilled in enhancing patient-team communication
- + Highly adept at using technology
- + Interprofessionally competent
- + Specialized skills vs. Generalist
- + Doctorally Prepared?



What Are The emerging Areas to Watch for? What will Impact SLP Practice? *Opportunity

- + Telehealth Delivery
- + Informatics
- + Genetics
- + Drug Development
- + Brain Imaging
- + Home Based Care
- + New Decision Makers-Physician Assistants and Nurse Practitioners
- + Palliative Care and End Of Life Decisions

What are Key Trends in Health Professions Education and Practice?

Outcomes Focused? Efficiency Focused? Cost Focused?

- + Interprofessional Focus
- + Outcomes /Competencies
- + Leadership Roles and Practices
- + Health Reform
- + Primacy of Primary Care
- + New Technologies for Teaching
 - + Online
 - + Simulation
 - + Standardized Patients

- + Development of analytical and informatics skills
- + Alignment of competencies, values, use of evidence
- + Considering needs around the world
- + Nurturing research and critical inquiry
- + Increasing prerequisites to decrease length of curriculum

Some recommendations for your consideration

- + Rec. 1: Practice Makes Perfect and Permanent
 - + Continue to develop more outcomes (competency) oriented approaches to our educational programs, especially at the clinical level;
 - + and look for new ways to integrate practice into the classroom and take the classroom into the practice setting

Rec. 2: Adopt IPEC Competencies ASAP

- + 4 Domains of IPE Competencies
 - + Values and Ethics for Interprofessional Practice
 - + Roles/Responsibilities
 - + Interprofessional Communication
 - + Teams/Teamwork

Source: Interprofessional Expert Panel (2011). *Core competencies for Interprofessional practice: Report of an expert panel*. Washington, DC: Interprofessional Practice Collaborative.

Rec. 3: Use Data to Answer Questions: A few relevant examples

- + What are the basic questions that, when answered, will demonstrate value?
 - + Can SLP contribution to health team based practice reduce readmission, reduce complications, increase satisfaction, change outcomes on important metrics, increase safety, reduce number of days?
 - + Can SLP practice enhance primary care for people with certain chronic diseases and disabilities?
 - + Improve access?
 - + Reduce ER visits?
 - + Assure timely interventions?
 - + What are the Quality of Life changes that occur as a result of SLP practice, SLP input, SLP delegation?
 - + Can cost of care (condition-specific) be reduced when “trained extenders” are used? When metrics are adopted and used? When best practice/ebp/outcomes guided practice are utilized for discharge decisions?
 - + What is the cost/benefit/outcome of using SLP Assistants?

Rec. 4: Revisit the curriculum to reflect and connect with practice essentials

- + Replace our focus on arbitrary requirements and traditions with meaningful outcomes oriented **best** educational practices.
- + Explore new integrative models of education that use new tools and new measures of performance
- + Keep science and other background information as prerequisites in
- + Look at best practices in other disciplines and borrow, steal, collaborate
- + Every program should demonstrate that they have used standards to improve the curriculum from a practice point of view

Rec. 5: Consider Primary Care Relationships

- + Who will be providing primary care in the future? NPs, PAs, Others
- + Primary care factors for communication or swallowing
- + Is communication a basic human right for all? If so, does it become a primary care issue?
- + What impact do communication and swallowing disorders have on primary care, quality of life, health status, cost, etc? (Every SLP should be able to answer these questions in a few words)

Rec. 4: Use New approaches to Education to Improve Exposure to Standard Experiences for all students, and increase clinical exposure

- + Simulation
- + Standardized Patients
- + Distance Technology
- + TOUGH QUESTION: IS THE "Typical" UNIVERSITY CLINIC THE RIGHT PLACE TO LEARN BEST PRACTICE? How can university programs build the bridge to patient centric, cost-sensitive, safe practice ?

Rec. 5: Re-think the CF as both transition to practice and a transition to lifelong SLP learning

- + Add some “serious” CE requirements and reduce variability
- + Include more reflective self assessment
- + Make it a value added learning experience without adding significant cost
- + Change our ongoing CE requirements to reflect best practice in the health professions and truly to be attempts at enhancing currency for all SLPs
- + Develop a standard (required?) online CE course for CF educator/supervisors

Rec 7: Encourage faculty members to develop advanced skills in teaching, simulation, instructional design, etc.

- + Practitioner faculty should be partners in the teaching continuum
- + The traditional professorial model is increasingly less useful for adult practice focused learning
- + Both Classroom and clinical faculty members should be pushed to be master educators and to have great outcomes (value based education)-will take investment

What is the future for Continuing Professional Education?

- + Competencies?
- + Outcomes Assessment?
- + Effectiveness?
- + Renewal?

Key References outside SLP

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- + Cook, DA, Levinson AJ, Garside S, Dupras DM. (2010). Instructional design variation in internet based learning for health professions education: A systematic review and meta-analysis. *Academic Medicine: 85, 5, 909-922*.
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A few examples at transformational attempts....

- + Concentrations in subspecialty areas of SLP
- + IPE-Dedicated Inpatient Unit
- + Shared Co-Curriculum
- + Using Simulation and Standardized Patients
- + Baby Day 😊
- + Lectures, Events focused on IPE
- + <http://www.mghihp.edu/Default.aspx>

Concentrations

- + Acute Care: medical complexity
- + Voice, Swallowing
- + Pediatric SLP
- + Literacy

Dedicated IP Teaching Unit

- + 14 students per semester
- + Trained faculty on the unit
- + Learning patient care system to apply later in their own discipline

Shared Core and Co-Curriculum

- + Some interdisciplinary courses (ethics, stats)
- + 10 student learning teams (PT, OT, SLP, NP) work together for the first two years
- + Focus on leadership, IHI competencies, ethics, IPE, case based and problem based activities, and professional socialization

Simulation/Standardized Patients

- + The University Clinic as a “simulation” of real world practice
- + Learning advanced practice skills without risk
- + Growing literature that supports highly sophisticated simulation activities as an efficient alternative to real world experience

“Preparing Speech-Language Pathologists and Audiologists to Provide Value-Based Services in the New Value-Based Climate”

Alternate title: “The times they are a-changin (with apologies to Robert Zimmerman)”

Robert Burkard, Ph.D., CCC-A

11/14/12

Researcher-Academic Town Meeting

Disclaimer 1: I have no financial or non-financial conflicts of interest in the future of audiology education/training.

Disclaimer 2: No speech-language pathologists were harmed in creating this presentation.

Disclaimer 3: I have not worked clinically for 30 years, nor have I taught in an Audiology program for 6+ years.

Disclaimer 4: This presentation is rated 'M', for mature audiences only.

“The future ain't what it use
to be.”

Yogi Berra



In this talk:

I will talk about whatever comes to mind, sort of 'stream of thought'. In these disjointed ramblings, I will try to discuss modifications in the training of future audiologists that may prepare the profession for the changes in healthcare provision and reimbursement.

Audiology Education/Training in the later part of the 1970s



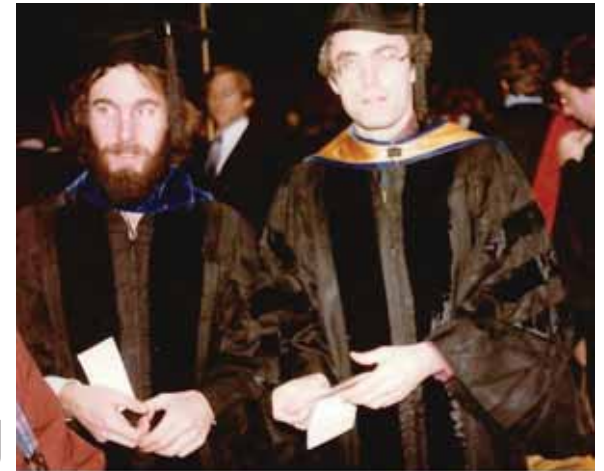
What was good about my training in Audiology in Madison (i.e., things that we shouldn't change):

Excellent faculty:

- A 'critical mass' (students AND Faculty)
- Dedication to both teaching and scholarship
- Taught us problem solving skills
- Excellent role models (work ethic)

Multidisciplinary:

- SLP/Audiology doctoral students
- Neurology, Neuroscience, Engineering
- Waisman Center: Interprofessional Education



Active Learning:

- The 4 Rs: Writing, Research, Arguing, Collaborating

What is new since the late 1970's that needs to be considered when creating a modern curriculum/learning environment in audiology?:

New areas that need to be covered:

- Cochlear/brainstem implants, Imaging, OAEs, Auditory Neuropathy, vestibular/balance assessment, molecular genetics

Some Questions that Come to my Mind re: Audiology Education:

- Is it possible for an AuD program with 3-4 fulltime audiology faculty to have expertise in all areas of clinical practice?
- Is there coursework that critically reviews the evidence base for audiologic practices?
- Who is teaching the AuD students about Obama-Care, changing health care models and how they impact reimbursement?
- What courses can productively be taught on-line?
- How is interprofessional education/practice integrated into the curriculum?

Healthcare changes that will affect clinical practice of audiology:

Bundling of diagnostic codes (comprehensive audiometric and vestibular codes)

Cost containment needed in service delivery:

- Value: optimize quality while driving down costs
- Episode of care versus fee for service

Declining reimbursement for diagnostic services (e.g., Medicare):

- Advances in imaging and other non-audiologic services may reduce the need for audiologic procedures for some diagnoses (e.g., vestibular schwannomas, superior canal dehiscence)
- Need to unbundle hearing aid charges in anticipation of online hearing aid sales increasing, making it more important than ever that Audiologists become more involved in rehabilitation: aural rehab, tinnitus rehab, APD rehab, vestibular rehab.

We need to engage in best clinical practices:

- These best practices must include patient-centered care, where the patient is part of the health-care team.
- Best clinical practices assumes evidence-based practice. (Note: Evidence-based practice is really tricky if we do not have a strong evidence base for what we do.)
- We must optimize VALUE (i.e., keep quality up, costs down).

More Questions:

- Do audiologists know why they are doing a clinical test?
- Are they qualified to perform and interpret the tests they are performing?
- Can they identify the most important test to do next?:
Do they regularly perform the optimal test battery on their patients (i.e., do all of the tests necessary for obtaining a complete diagnostic picture of that patient, without performing any superfluous tests)? (Note: This affects Value)

A recent educational development: On-Line Learning

A **massive open online course (MOOC)** is a type of online [course](#) aimed at large-scale participation and open access via the [web](#). MOOCs are a recent development in the area of [distance education](#), and a progression of the kind of open education ideals suggested by [open educational resources](#).

Though the design of and participation in a MOOC may be similar to college or university courses, MOOCs typically do not offer credits awarded to paying students at schools. However, assessment of learning may be done for certification.

A major breakthrough came in Fall 2011 when over 160,000^[6] people signed up for a course in artificial intelligence offered by [Sebastian Thrun](#) and [Peter Norvig](#) through Thrun's start-up Know Labs (now Udacity).

http://en.wikipedia.org/wiki/Massive_open_online_course

The Good and the Bad of Online Learning:

Positives:

No need for 'local' faculty expertise.

Some courses are free.

If asynchronous courses, flexibility as to when students 'attend' lectures.

Students can be anywhere in the world.

Chatrooms/discussion boards can be used to create opportunities for active learning.

Negatives:

Technical Challenges: Computers, network stability/bandwidth, software issues

Challenges in determining who is completing assignments. Cheating is a very real potential problem.

MOOCs are free, and are not offered for credit. For University programs offering degrees based on credits:

- Can Universities unbundle their costs: the lectures versus the assessments versus the course credit?
- Online courses (free or not) do not offer all the different interactions that are part of the university experience:

The 4 Rs: Writing, Research, arguing, collaborating

The mentor/mentee relationship

Social

Laboratory experiences may be more limited

Cognitive:

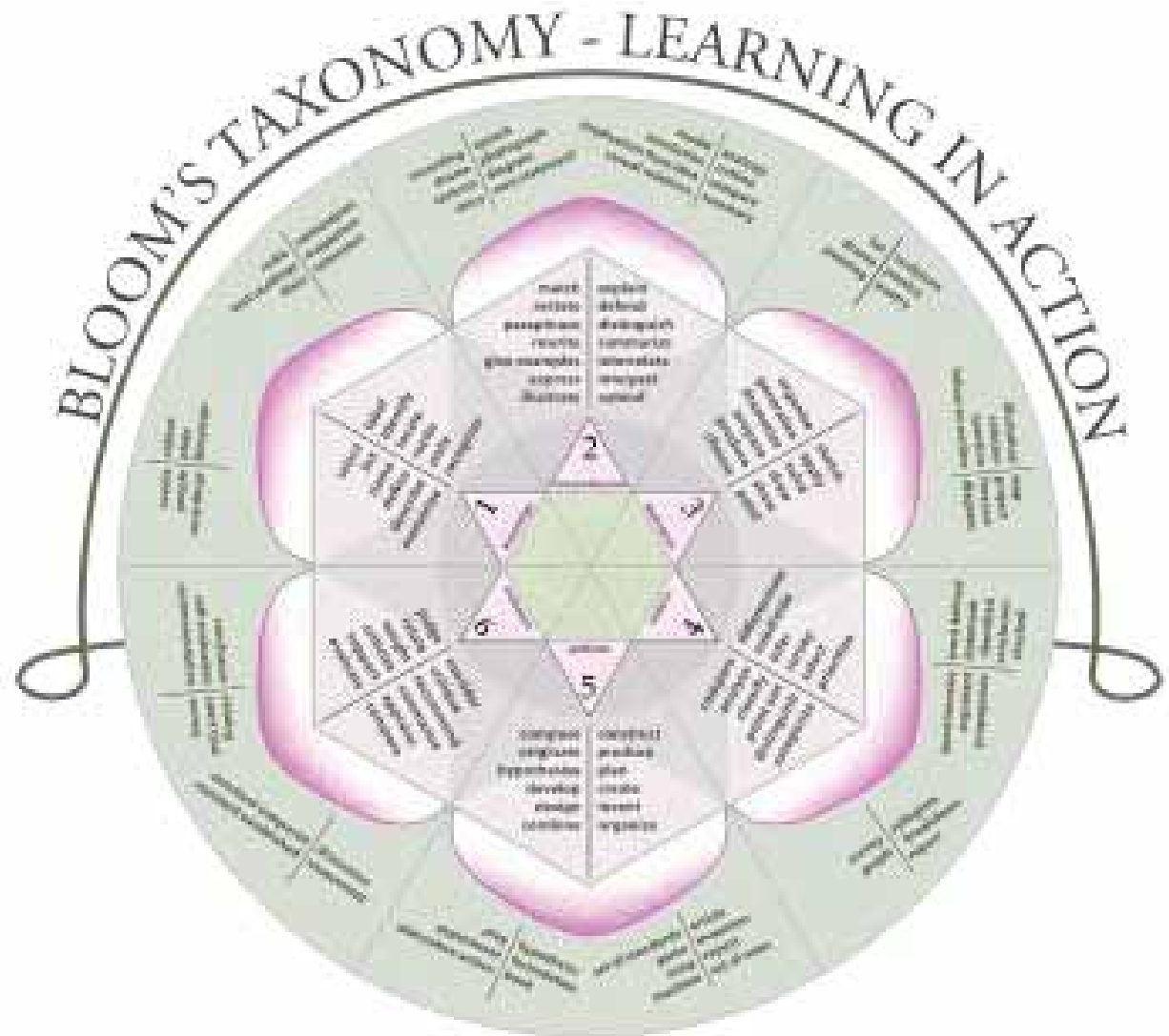
- Knowledge
- Comprehension
- Application
- Analysis
- Synthesis
- Evaluation

Affective:

- Receiving
- Responding
- Valuing
- Organizing
- Characterizing

Psychomotor:

- Perception
- Set
- Guided Response
- Mechanism
- Complex Overt Response
- Adaptation
- Origination



http://en.wikipedia.org/wiki/Bloom's_Taxonomy

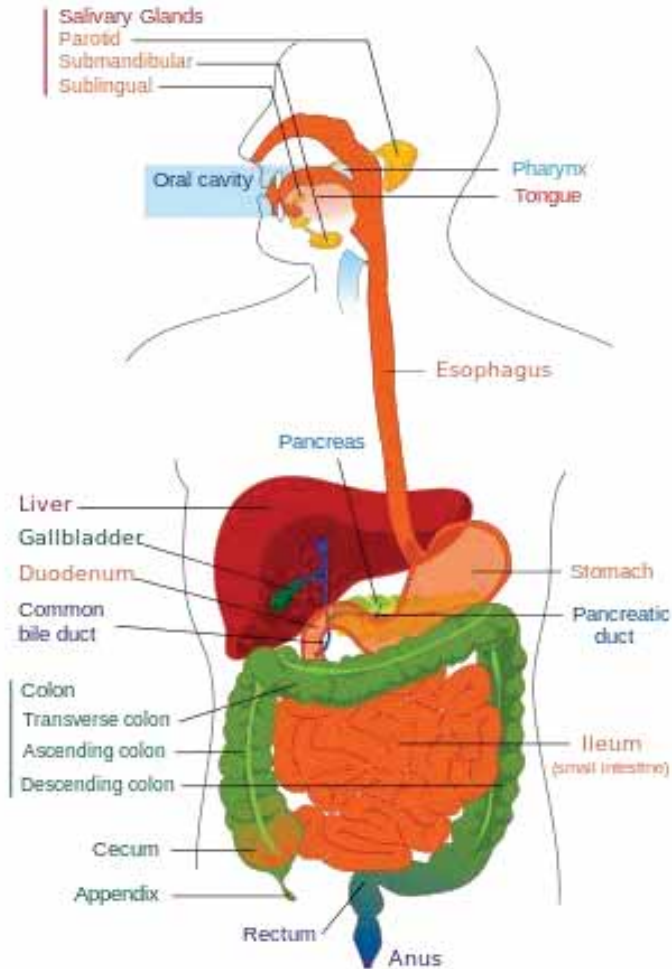
Sexting



<http://en.wikipedia.org/wiki/Sexting>

Educating/Training Audiologists is like:

Eating....



<http://en.wikipedia.org/wiki/Digestion>



<http://en.wikipedia.org/wiki/Tongue>

Bitterness
Saltiness
Sourness
Sweetness
Umami-ness
Metallicity

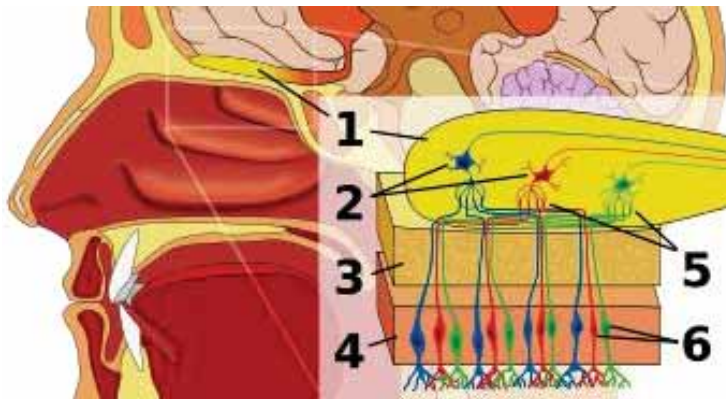
<http://en.wikipedia.org/wiki/Taste>



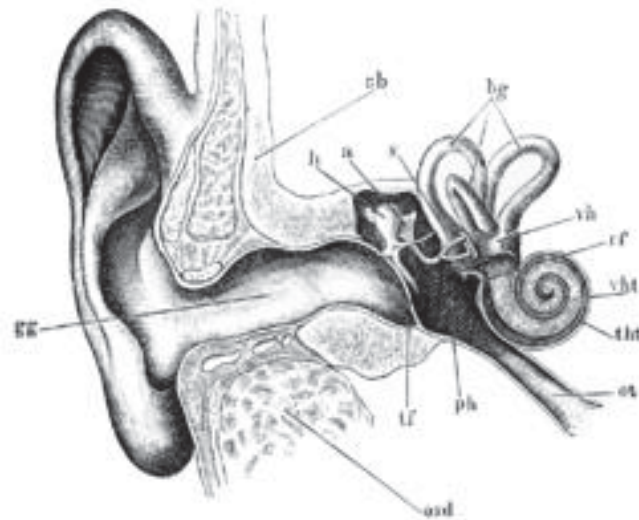
<http://kimkardashian.celebuzz.com/>



<http://www.imdb.com/name/nm0000123/>



<http://en.wikipedia.org/wiki/Olfaction>



[http://en.wikipedia.org/wiki/Hearing_\(sense\)](http://en.wikipedia.org/wiki/Hearing_(sense))

- Online courses (free or not) do not offer all the different sensorimotor experiences and interactions that are part of the university experience:

The 4 Rs: writing, research, arguing, collaborating

The mentor/mentee relationship

Social

Laboratory experiences may be more limited

- Ray Kent: wrote a book chapter with me
- Terry Wiley and Aaron Thornton taught me how to argue/debate
- Ted Tweed- clinical supervisor
- Terry Wiley, Bob Goldstein, Kurt Hecox: Research mentors
- Friendship, intimate relationships, fiscal
- Laboratories: active learning, problem solving, working in groups (In electronics: IPE?).
- Some laboratories can be performed online (acoustics?), but others are more challenging: Audiometrics, AEPs, immittance
- The recent summit: Lectures given, which could have been online. The best part: small group discussions, group presentations, the consensus process



A Quick Quiz:

In this presentation, Bob Burkard indirectly drew an analogy between **sexting** and:

- A. The ASHA Healthcare Summit
- B. Alex Johnson
- C. Online Learning
- D. Obamacare

How do we know our teaching is achieving its goals?

Assessment:

Assessment is simply the process of collecting information about student learning and performance to improve education.

Elberly Center for Teaching Effectiveness, Carnegie Mellon
<http://www.cmu.edu/teaching/assessment/index.html>

For Clinical Practice:

Assessment is simply the process of collecting information about ~~student~~ **patient/client** learning and performance to ~~improve education~~ **optimize clinical outcomes**.

Now– back to Health Care Changes:

We do not have a good evidence base for all of our clinical activities in

Audiology:

- In the future, a poor evidence base will mean less reimbursement.
- We need to discuss what data is needed, how it will be accessed, and how it will be continuously updated, and do so IMMEDIATELY.

We need to provide our services as efficiently as possible: Value = Quality/Cost

- We need to decide if quality can be improved by selective use of:
 - Audiology Assistants
 - Specialty Certification
 - Tele-Audiology

In the future, we will have to provide outcome measures for our clinical activities, as part of at least Medicare reimbursement:

- We need to develop outcome measures that have all of the desired psychometric properties, but that also easily administered in a brief amount of time.
- We need to consider the effects of our services on the patient's lives, not just their hearing (e.g., embrace the International Classification of Function framework).

The changes in health care must be reflected in our academic programs:

- In those areas where faculty are not interested/knowledgeable, hire adjuncts or supplement program with online learning from experts based elsewhere.
- We must start training hearing scientists with expertise in research areas related to evidence-based practice, health-care economics, large data sets and assessment.

In this presentation:

I briefly mentioned changes in healthcare: value, patient-centered care, episodes of care, and some specific changes coming for audiology (bundling/unbundling, hearing aids, rehab).

I talked about conventional classroom teaching (specifically, my own personal experiences).

I presented my own view of the good and the bad of online learning.

I presented my views on the importance of assessment, not only for classroom/online learning, but also for monitoring the clinical progress of our patients.

I assessed whether you understood my implied analogy between sexting and online learning.

I ended with describing some of the changes in the training of Audiologists and academicians that will prepare us for the changes in health care that are coming.

Thank you to our contributing partner:

PEARSON

